IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application.

1-146. (Canceled)

147. (Previously presented) Crystalline atorvastatin hemi-calcium and solvates thereof characterized by a physical or spectroscopic analysis result selected from the group consisting of:

a) a powder X-ray diffraction pattern generated using CuK_α radiation with peaks at 4.8, 5.2, 8.0, 9.2, 9.6, 19.0, 20.0, 24.0 and 29.0±0.2 degrees two-theta;

b) a powder X-ray diffraction pattern generated using CuK_α radiation with peaks at 9.3, 9.6, 19.2, 20.0, 21.6, 22.4 and 23.9±0.2 degrees two-theta;

c) *d*-spacings of about 30.81, 18.46, 16.96, 15.39, 14.90, 12.78, 11.05, 9.58, 9.22, 7.42, 6.15, 5.43, 4.62, 4.44, and 3.98Å;

d) a monoclinic unit cell with cell parameters: a=18.55-18.7 Å, b=5.52-5.53 Å, c=31.0-31.2 Å and β=97.5-99.5

e) a solid state cross-polarization/magic angle spinning ^{13}C nuclear magnetic resonance spectrum with resonances at 24.8, 25.2, 26.1, 119.5, 120.1, 121.8, 122.8, 126.6, 128.8, 129.2, 134.2, 135.1, 137.0, 138.3 and 139.8±0.1 parts per million; and

f) a solid state cross-polarization/magic angle spinning ^{13}C nuclear magnetic resonance spectrum wherein the chemical shift differences between the lowest resonance and other resonances are: 2.2, 7.0, 7.4, 8.3, 22.5, 23.0, 23.7, 25.6, 26.3, 28.3, 53.0, 55.5, 96.3, 98.2, 101.7, 102.3, 104.0, 105.0, 108.8, 111.0, 111.4, 116.4, 117.3, 119.2, 120.5, 122.0, 142.0, 148.6, 161.0 and 168.7 parts per million.

148. (Previously presented) The crystalline atorvastatin hemi-calcium and solvates thereof of claim 147 wherein the result is the powder X-ray diffraction pattern with peaks at 4.8, 5.2, 8.0, 9.2, 9.6, 19.0, 20.0, 24.0 and 29.0±0.2 degrees two-theta.

149. (Previously presented) The crystalline atorvastatin hemi-calcium and solvates thereof of claim 148 wherein the powder X-ray diffraction pattern has peaks at 11.9, 17.3, 21.5 and 22.3±0.2 degrees two-theta.

150. (Previously presented) The crystalline atorvastatin hemi-calcium and solvates thereof of claim 149 characterized by a powder X-ray diffraction pattern generated using CuK_α radiation substantially as depicted in FIG 3.

151. (Previously presented) The crystalline atorvastatin hemi-calcium and solvates thereof of claim 147 wherein the result is the powder X-ray diffraction pattern with peaks at 9.3, 9.6, 19.2, 20.0, 21.6, 22.4 and 23.9±0.2 degrees two-theta.

152. (Previously presented) The crystalline atorvastatin hemi-calcium and solvates thereof of claim 148 characterized by a powder X-ray diffraction pattern generated using CuK_α radiation substantially as depicted in FIG 3.

153. (Previously presented) The crystalline atorvastatin hemi-calcium and solvates thereof of claim 151 wherein the powder X-ray diffraction pattern further has a peak at 16.3 degrees two-theta.

154. (Previously presented) The crystalline atorvastatin hemi-calcium and solvates thereof of claim 151 wherein the powder X-ray diffraction pattern further includes peaks at 17.1 (broad), 24.7, 25.6, 26.5±0.2 degrees two-theta.

155. (Previously presented) The crystalline atorvastatin hemi-calcium and solvates thereof of claim 147 wherein the result is the *d*-spacings and the crystalline atorvastatin hemi-calcium and solvates thereof is further characterized by a high resolution powder X-ray diffraction pattern substantially as shown in FIG 4 when irradiated with X-rays with a wavelength of about 1.15Å.

156. (Previously presented) The crystalline atorvastatin hemi-calcium and solvates thereof of claim 147 wherein the result is a solid state cross-polarization/magic angle spinning ^{13}C nuclear magnetic resonance spectrum with resonances at 24.8, 25.2, 26.1, 119.5, 120.1, 121.8, 122.8, 126.6, 128.8, 129.2, 134.2, 135.1, 137.0, 138.3 and 139.8±0.1 parts per million and the spectrum further includes resonances at 17.8, 20.0, 40.3,

40.8, 41.5, 43.4, 44.1, 46.1, 70.8, 73.3, 114.1, 116.0, 159.8, 166.4, 178.8 and 186.5±0.1 parts per million.

157. (Previously presented) The crystalline atorvastatin hemi-calcium and solvates thereof of claim 147 wherein the result is a solid state cross-polarization/magic angle spinning ^{13}C nuclear magnetic resonance spectrum with resonances at 24.8, 25.2, 26.1, 119.5, 120.1, 121.8, 122.8, 126.6, 128.8, 129.2, 134.2, 135.1, 137.0, 138.3 and 139.8±0.1 parts per million and the spectrum is substantially as depicted in FIG 5.

158. (Previously presented) The crystalline atorvastatin hemi-calcium and solvates thereof of claim 147 having a water content of up to 7%.

159. (Previously presented) The crystalline atorvastatin hemi-calcium and solvates thereof of claim 147 that is a trihydrate.

160. (Previously presented) The crystalline atorvastatin hemi-calcium and solvates thereof of claim 147 containing up to about four moles of water.

161. (Previously presented) The crystalline atorvastatin hemi-calcium and solvates thereof of claim 147 containing up to about 3% ethanol.

162. (Previously presented) The crystalline atorvastatin hemi-calcium and solvates thereof of claim 147 having a narrow particle size distribution.

163. (Previously presented) The crystalline atorvastatin hemi-calcium and solvates thereof of claim 162 wherein all of the particles are 100 microns or less in diameter.

164. (Previously presented) The crystalline atorvastatin hemi-calcium and solvates thereof of claim 163 wherein all of the particles are 50 microns or less in diameter.

165. (Previously presented) Crystalline atorvastatin hemi-calcium Form VIII ethanolate.

166. (Previously presented) The crystalline atorvastatin hemi-calcium ethanolate of claim 165 containing up to about 3 % ethanol.

167-188. (Canceled)